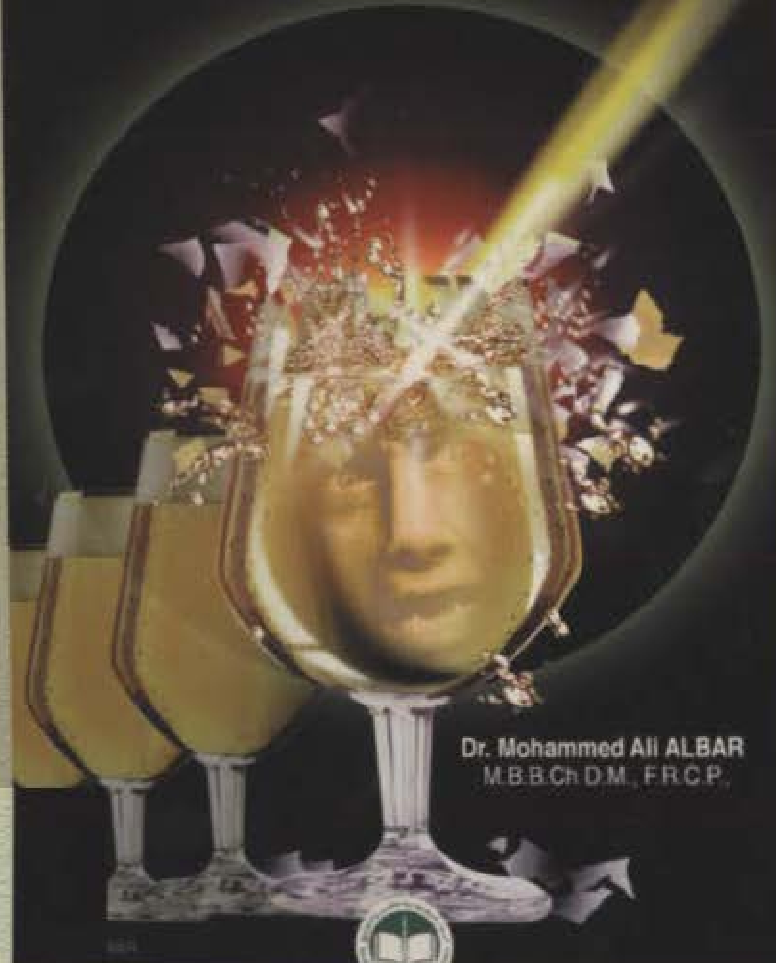
The problem of ALCOHOL

and its solution in ISLAM



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SAUDI PUBLISHING & DISTRIBUTING HOUSE

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Tel:(01753) 648701 Fax:(01753) 648707

USA
New Era publications
P.o. Box 130109, Ann Arbor
MI 48113 - 0109

Second Edition
Completly Revised
2001

King Fahd National Library Cataloging in Publication Data

Al Bar, Mohammad Ali
The Problem of alcohol and its solution - Jeddah
106 Pages 14 x 20 cm.
ISBN : 9960-26-019-4
(1) Alcohol beverages (2) Alcoholism
(3) Drinking of alcoholic beverages I-Title
632.292 dc 0443/18

Legal Deposit no. 0443/18
ISBN: 9960-26-019-4

بسم الله الرحمن الرحيم

﴿ يأيـها الذيـن آمنـوا إنمـا الخمـر والميسـر والأنصـاب والأزلام رجس من عمل الشيطان فاجتنبوه لعلكم تفلحون إنما يريد الشيطان أن يوقع بينكم العداوة والبغضاء في الخمر والميسر ويصدكـم عـن ذكر الله وعن الصلاة فهل أنتم منتهون ﴾

(المائدة ٩٠ - ٩١)

"O You who believe! intoxicants and Gambling dedication of Stones, and Divination by arrows are an abomination of Satan's handwork: Eschew such abomination, that you may prosper.

By means of intoxicants and gambling, the Satan seeks to sow enmity and hatred among you, and to turn you away from the remembrance of God and from Prayer.

Will you not then desist?" (Sura 5, Verse: 90-91)

Introduction

Alcohol dependence is a major public health concern. The WHO, in its Thirty-second World Health Assembly in 1979, resolution WHA32, 40, declared that Alcohol problems now rank among the world's major public health concerns which constitutes a serious obstacle to socio-economic development and threatens to overwhelm the health services.

Consumption of alcoholic beverages has seen tremendous increase in most countries of the world, in the last two decades (WHO Tech, Report No. 650, 1980).

Another report of WHO in 1982 (Medicine Digest 8 '12, 1982) showed that by 1982 beer production was increased by 124% world-wide. In Asia, in some countries, the increase was 500% while in some African countries, the increase was 400%. Even remote villages in many third world countries were consuming alcoholic beverages, while they lacked clean water, sewage disposal and primary health amenities.

The socio-economic problems due to alcohol have even more deleterious effects on the community than the staggering health problems. There is a consistent correlation within a community between per capita consumption of alcohol and crimes of violence, traffic

accidents, major industrial and economic losses, besides the cirrhosis of the liver and other alcohol related diseases.

The economic losses due to alcohol consumption is U.S.A. in 1979 were estimated at the staggering figure of 43,000 million dollars (WHO Tech. Report No. 650, 1980). UK. spent 3000 million pounds on alcohol in 1971, while France spent 7000 million dollars and West Germany spent 27,584 million marks in 1971.

Alcohol features prominently in traffic accidents. WHO statistics suggest that 50% of all traffic accidents are committed under the effects of alcohol. In crimes of violence alcohol plays a prominent role. WHO declared that 86% of murder crimes and 50% of rapes and other crimes of violence were committed under the effect of alcohol (Daily Mail, June 24, 1980).

Industrial losses due to alcohol consumption are tremendous. In Scotland alone, the losses are estimated at 100 million pounds annually (Scottish Council on Alcoholism, Annual Report, 1977). In USSR, alcohol abuse is the most important cause of absenteeism and loss of production.

Nevertheless, many misconceptions about alcohol refuse to die. It is considered as a social lubricant, aperitif and a panacea for many ailments. Its presumed good effects on digestion were proclaimed by many ancient nations. Even renowned Moslem physicians like Abubaker Al Rhazi, and Ibn Sina were commending liquor in moderation to keep good health.

The aphrodisiac effect, the warming effect, and the benefits for the heart and its circulation, are only few of the misconceptions that still hold on even today.

The Medicinal properties of alcohol were refuted by the Prophet Mohammad (peace be upon him) 1400 years ago. The science of medicine, late in the twentieth century, came at last to the same conclusion.

This small book discusses in its first chapter the problem of alcohol dependence and its solution in Islam. In the second chapter, the medical problems are discusssed briefly. The third chapter discusses Alcohol and cancer. The fourth chapter discusses the Socio-Medical problems caused by alcohol consumption, while the last chapter discusses the lingering myths and misconceptions about the health procuring properties of alcohol.

On December 5, 1933, the Eighteenth Amendment Act was repealed by twenty-first Amendment which legalized the consumption of alcohol in the U S A. Since then, most programs concerning alcohol problems focused on the individual heavy drinker. The deleterious effects of drinking in the community received little attention.

WHO technical report No. 650,1980, comments on this way of management and .concludes that it has a limited success, if any. The major focus of efforts to reduce alcohol-related problems must be on the area of primary prevention.

Only Islam provided such a scheme that succeeded in curbing alcohol-related problems in all nations that embraced Islam for the last fourteen centuries.

Chapter 1

The problem of Alcohol Dependence and Its Solution in Islam

Alcohol dependence is a world-wide problem, more intense and widespread than all the other drugs causing dependence combined. In all countries where alcohol drinking is legally permitted, the majority of the adult population drink. In the U.S.A. at least 100 million Americans drink alcoholic beverages either occasionally or consistently. The majority of these who drink are "social drinkers," with little apparent ill effect. However, some 10 percent of all those who drink suffer from problems related to alcohol consumption. Although the percentage may seem small, the total number of individuals involved is quite large.

In the U.S.A. there are ten million alcohol dependents and one to two million suffer organic physical complications.[1] In the U.S.S.R., 25 million are suffering from alcohol dependence, in France 4 to 4.5 million, in West Germany 2.5 million and in the U.K. 0.5 to 1 million are labeled alcohol-dependent. In many countries, especially in the Eastern block and some developing countries of Asia, Africa and Latin America, some 5 to 10 percent of the whole population suffer from alcohol

dependence. [3] In Western countries, the moderate use of alcohol is almost a normal part of the culture and its availability leads to widespread abuse.[4] On the other hand, the use of opiates and other drugs of dependence is strongly condemned and suppressed by the society and legal procedures. The trade in drugs other than alcohol is facing a fierce battle nationally and internationally.

Unfortunately, the trade in alcohol is left unscathed. A major sector of government revenues is collected from duties on alcohol. In France, a third of the electorate gets all or part of its income from the production and sale of alcoholic drinks... In quite a literal sense they are supported by alcohol. [5]

The industry, controlled by a few giant companies, make tremendous profits from the sale of alcohol worldwide. The amount of money invested in alcohol industry runs into thousands of millions of dollars.

It is no wonder, therefore, to find that the notion of proscribing alcohol is fought tooth -and -nail by all who profit from the industry of alcoholic beverages, despite the fact that alcohol consumption plays havoc to the whole community.

The thirty second world health assembly in 1979 declared in resolution WHA 32,40 that "Problems related to alcohol and particularly to its excessive consumption, rank among the world's major public health problems" and "constitutes serious hazards for human health, wealth and life.[6]

The economic costs of dealing with such problems is uncountable. In U.S.A. alone the annual cost of alcohol - related problems was estimated at 43 billion dollars. In 1978 the total cost of alcohol related problems was 56 billion dollars (published by ALAHRAM Newspaper, Jan,11,1979).[7] The heavy toll of human unhappiness represented by broken homes, neglected children, ruined careers, and loss of human life is beyond calculation. The loss of human life due to alcohol is also staggering . In the U.S.A. the death toll due to traffic accidents is 60,000 annually. At least half of them are related to alcohol consumption. Deaths due to diseases caused by alcohol range between 15,000 and 20,000 annually ; and suicide and murder committed under the influence of alcohol reach a similar figure.[8] Total deaths due to alcohol in USA is estimated at 125,000 annually.

The tendency, especially in the West, is to treat the alcoholic while leaving aside the problem of availability of alcohol in the community.

WHO Technical Report 650, 1980 comments on this way of management with the following :

"With problems of such magnitude, it is clear that even the most effective treatment programs for alcohol dependence cannot possibly constitute an adequate response. Moreover, treatment approaches have had only limited success in this field, and there is much concern at présent about their cost-effectiveness even when they are successful. In the light of all these considerations it appears inescapable that the major focus of efforts to reduce alcohol-

related problems must be on the area of primary prevention".

The WHO Expert Committee on Drug Dependence concluded:

"In many parts of the world, problems associated with the use of alcohol far exceed those associated with the non-medical use of less socially accepted dependence-producing drugs such as those of amphetamine, cannabis, and morphine types." (9)

This assessment draws attention to the striking disparity between public attitudes to alcohol and other drugs of addiction. It is equally disturbing to find striking disparity between the stance of governmental and international laws towards alcohol and other dependence producing drugs.

The ill effects of alcoholic beverages far exceed those of opiates, barbiturates, and hallucinogenic drugs such as cannabis (marihuana or hashish) and LSD put together.(10) This is mainly because "alcohol is so permissible and trusted a poison, so easy of access for those who wish to escape from their troubles, that it is resorted to in excess by maladjusted persons."(11) Secondly, alcohol is integrated in many cultures, especially in the European and North American cultures whereby alcohol has a special status as a sacred symbol, as an everyday all-purpose drink, as a means of enhancing enjoyment during festivals, holidays, and celebrations of all kinds and as a pleasurable accompaniment to meals.

In the eyes of the population of those countries, opium, morphine, cocaine and cannabis are quite different. They are felt to be dangerous and alien to the community and can be banned quite safely without impinging on the livelihood of farmers or interfering with the industry.

In industrial countries, alcohol remains the only sanctioned intoxicant. Attempts to prohibit its consumption are neither desirable nor possible to the majority of the populace.

The traumatic experience of the prohibition years (1920-1933) in the U.S.A. are still felt in many circles with the resultant conviction that prohibition did not in reality prohibit the use of alcohol. It resulted in a whole range of more serious problems. People drank impure liquids, not infrequently containing methylated spirits (methyl alcohol) which resulted in blindness and death from toxic myocarditis. Bootlegging, organised crime and other illegal activities flourished. More drinking was going on secretly and more alcoholics were suffering.

During the early days of prohibition, it was argued that more effective law enforcement was needed. Much money and energy were expended to support this view.(12) The law enforcement action brought millions to court, half a million were convicted of possessing or trading in alcoholic beverages. Two hundred persons were given capital punishment because of very serious crimes connected with alcohol propagation secretly. The cost of alcohol confiscated reached at that time more than 400 million dollars. (13.14)

It is clear that the different governments in the U.S.A. tried hard, from 1920 to 1933, to prohibit forcibly alcohol and to maintain the country on abstention. Unfortunately, this prohibition by legal procedures, whereby the majority of the people of the U.S.A. were incapable and not willing to stop their habits of drinking, ended in absolute failure.

"The prohibition amendment, known as the Eighteenth Amendment, was not repealed on the basis of whether alcohol is good or bad, harmless or hazardous. The decision was made on the very realistic and practical basis that prohibition was not working". (15)

The Eighteenth Amendment Act to the U.S. Constitution was passed on January 16, 1919 and proclaimed that:

1) After one year from the ratification of this article, the manufacture, sale or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all the territories subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

2) The Congress and the several states shall have concurrent power to enforce this article by appropriate legislation.

The attempt to transform the United States into a dry country by constitutional amendment failed. The amendment did not put an end to alcohol consumption or to alcoholism. Instead, during the fourteen years of its enforcement, it probably caused more harm than good. It

did not change the majority of the American people who wanted to continue drinking rather than abstain.

On December 5, 1933 the Eighteenth Amendment was repealed by the Twenty-first Amendment:

1) The eighteenth Article of the Amendment to the Constitution of the United States is hereby repealed.

2) The transportation into any state, territory, or possession of the United Sates for delivery or use therein of intoxicating liquors, in violation of the laws thereof is hereby prohibited.

Each state had the right to have its own prohibition law . Since then, all the States passed legislation to allow alcoholic beverages for sale and consumption for all adults above certain years of age. The last state to pass such legislation was Mississippi in 1966. The age to vote has been lowered to 18, and soon the age of legal drinking followed suit.

Alcohol prohibition lost the battle and no attempt to revise the concept of legal prohibition is likely to be tried again in the U.S.A. or even Europe. (16)

The western countries, and many others followed suit, legalised alcohol consumption in order to avoid excessive drinking. Driving cars under the effects of alcohol is punishable in all countries of the world. However, the blood level of alcohol considered dangerous for driving varies from country: nowadays most countries would consider 50 mg of alcohol per 100 ml blood dangerous and punishable. Youngsters are not allowed to go to pubs and not allowed to

buy alcoholic beverages. Limited hours were only allowed for public houses and taverns to work.

Unfortunately, this type of limitation proved fruitless. Education about alcohol and its dangers seems to bring some benefits, but its good effects are hampered and swept over by the clever means of advertisement.

The industry spends hundreds of millions of dollars and pounds on advertisement. Alcohol consumption is portrayed as a sign of manliness, maturity, and sexual prowess...

In face of this tremendous exposure to alcohol propaganda, those who wish to proscribe or even curtail the consumption of alcohol feel frustrated. More and more people get into drinking and many turn to be alcohol dependent who need treatment.

Hospital and health resources are drained. Admission of alcohol dependents constitutes between one-third and one-half of all mental hospitals in many countries.[17] Between one-fifth and one-fourth of all admissions to general hospitals in many countries are due to alcohol-related problems.[18.19.20]

The WHO Expert Committee on Drug Dependence emphasized that problems related to alcohol consumption can no longer be considered merely as medical or moral problems of the individual, with repercussions on the welfare of his family. These problems are now affecting the health, welfare and safety of total populations, and

according to reports from some countries, even national development.[21]

Despite all these facts, and despite the fact that alcohol is classified by WHO Committee, as a drug-causing dependence and major health problems, the western societies and most countries of the world do not consider alcohol on a parity with morphine, heroin, barbiturates, or even hashish.

It is saddening to see some westernized Moslems trying to push the habit of alcohol drinking into their abstinent societies. A well-known Egyptian female journalist, Amina Al-Saeed, tried hard in the 1960's to propagate beer into the depths of Egyptian country to fight the so-called deleterious effects of hashish. It is sheer stupidity to replace one harmful drug with another causing more harm.

Alcoholism or alcohol dependence is now looked upon as a disease. The three cardinal symptoms of the disease are: loss of control, increasing need and inability to stop. There are many underlying causes for drinking excessively. Personal problems, failures in work or love, social upheavals and calamities, poverty, inequality are all related to heavy drinking. Even wealth and leisure were linked to heavy drinking. Simply, alcohol is a drug that will cause dependence and people exposed to it are likely to become alcohol-dependent whenever they are maladjusted for any reason

It seems then stupid to expose people to these deleterious effects. One would argue why not allow them to

try other mood modifying drugs, e.g. hashish, marihuana, or cocaine, or even LSD. All these drugs produce less dependence than alcohol. In fact, unlike alcohol, they do not produce physical dependence. Even amphetamine and opiate agonist-antagonist drugs cause less physical dependence. The list of the drugs which are classified under the heading "dependence-producing drugs" and which are prohibited by most, if not all, the countries of the world , include many drugs whose ill effects and addiction production is much less than alcohol.

Then, why on earth, alcohol is so permissible a poison while all the similar or even less potent intoxicant drugs are not allowed. The only reason for this disparity is that alcohol has been considered for many centuries, especially in western countries, as a harmless drug. Some would claim for it many virtues-medical and otherwise. Only Islam managed to curb the problem of alcohol intake and eradicate it almost completely.

HOW ISLAM MANAGED TO SOLVE THE PROBLEMS OF ALCOHOL CONSUMPTION.

Islam completely banned the use of alcohol 14 centuries ago. It did this by few verses (ayas) of the Quran and few instructions by the Prophet Mohammad (peace be upon Him).

Unlike the American people who failed to conform with their constitution and law which banned alcohol in 1919, the

ignorant Arabs conformed immediately to the ban proclaimed by the Holy Quran.

One may argue, perhaps, the pre-Islamic Arabs (jahiliya) were not so addicted to alcohol consumption as the twentieth century Americans. Unfortunately, the facts of history tell us that the Arabs were involved with the intoxicating liquor - even more than the present day American or European.

Arabs in their jahiliyah and even after Islam considered liquor as a source of joy, benevolence, good food and an indispensable tool to keep good health. The misconceptions of the medicinal and health procuring properties of alcohol will be discussed in a separate chapter. Many of the newly converted Arabs of Islam tried to convince the Prophet that they drank liquor and gave it to others only as medicine. The Prophet (peace be upon Him) emphatically said: " It is no medicine. It is a cause of disease and ailment itself."

Alcohol was indispensable for the life of pre-Islamic Arabs. Tensions were high, tribal feuds and fights were the norms, cousin tribes would fight each other for decades, almost until annihilation, for trivial causes. The war of Dahis and Alghabra continued for decades because the horse of Dahis was distracted by the rival tribe in order not to take the lead between it and the horse Alghabra. Similarly, the war between the cousin tribes Baker and Taghlib continued for forty years because Kulaib, one of the tribal chiefs, shot the udder of the she-camel that belonged to Al-Basoos. Kulaib himself was killed during this war and his brother, Al-Muhalhil, lamented: "Both tribes were

annihilated. What remained were only mourning mothers and orphaned children that would not be wiped, and bodies that could not be buried." (22)

The family life was disrupted. Female children were treated very harshly and even were put to death at the moment of their birth. Female babies were generally buried alive or thrown to death from high places or suffocated by the father or mother. At times this callous behavior might be postponed because the father was traveling somewhere else and the girl was executed after she was old enough to consciously experience the brutality of the crime

The Holy Quran derided this behavior:

" When the savage beast shall be mustered, when seas shall be set boiling , when souls shall be coupled, when buried female infant shall be asked why she was murdered." (Sura 81, Verse 1-9)

قال تعالي :

﴿اذا الشمس كورت . وإذا النجوم انكدرت . واذا الجبال سيرت . وإذا العشار عطلت. وإذا الوحوش حشرت . وإذا البحار سجرت . وإذا النفوس زوجت. وإذا الموؤدة سئلت. بأي ذنب قتلت ﴾ التكوير : ١-٩

In another Sura the Quran says:

"If one of them receives the tidings of a female, his face remains darkened and he is in wrath inwardly. He hides himself from his folk because of the bad news. He

contemplates: shall he keep the child in contempt or bury it in the dust. Verily evil is their judgment." (Sura16: 58-59)

﴿ وإذا بشر أحدهم بالأنثى ظل وجهه مسودا وهو كظيم* يتوارى من القوم من سوء مابشر به أيمسكه على هون أم يدسه في التراب ألا ساء مايحكمون ﴾ النحل : ٥٩-٥٨

Women on the whole were despised and maltreated. Even with respect to his male child, of whom the typical Arab of Jahiliya was proud, he would not kiss and play with him. When the chief of the tribes of Najid, Alaqrah Ibn Habis Altamimi, came to the Prophet Mohammad (peace be upon Him), he was amazed to find the Prophet playing and kissing his grandson. The man exclaimed: "I have had ten children and it never came to my mind to play or kiss a child." The Prophet then said, "What can I do for you if God has left no mercy in your heart."

Prostitution and promiscuity were rampant. Aisha, the wife of the Prophet, described the different types of sexual contact in Jahiliya. Only marriage remained while all the other types were refuted by Islam. The husband might send his wife to live with another person with known physical and mental qualities until she became pregnant. Then she would go back to her husband after she had got him a good breed![23]

Tribes would attack each other for trivial or even no reason part from looting. The defeated tribe would face disgrace, those who fell in captivity become slaves and all their fortune was confiscated. The children and wives

particularly were liable to fall into-slavery if the defendant was killed or, worst if he was defeated and survived the battle.

Poetry and pompous oratory were highly appreciated. Amer Ibn Kalthoom, a renowned Jahiliya poet pompously said:

"Our thirsty victorious flags are white before we wage war.

After the battle they are red sated with the blood of the foe.

And when a male newborn in our tribe reaches the age of weaning.

Tyrants prostrate themselves to him in submission and yielding.

The tribe would be exalted by a beautiful pompous poem or would be defamed by another derisory poem.

The tribe of Numeir was defamed by a poet called Jarir and the whole tribe had to leave their dwellings and take another name, of one of their ancestors, Amer Ibn Sahsa'a, in order to evade the contemptuous derisive comments of those who knew the poem of Jarir.

Their convictions and beliefs were false and superstitious. They worshipped idols made of ordinary stones. If the Arab was on a journey, then he would choose four stones, three for his food pot and one for his worship. Sometimes he would make an idol to worship, out of dates, and if he got hungry he would eat his god! (25)

"Thus it was only natural for alcohol to become so indispensable for the life of the pre-Islamic Arabs. And if we take the modern view of psychologists and psychoanalysts who consider alcohol-dependence in adulthood as a direct result of example plus childhood deprivation, insecurity, broken families or emotional traumas, then the life of the pre-Islamic family must have created optimum conditions for bringing up alcoholics. So it is not surprising from the history of the pre-Islamic Arabs that heavy drinking and the generous serving of khamir (liquor) and food were signs of magnanimity for which the individual and the tribe received great honors and praise. Ancient Arabic poetry is full of literary works glorifying excessive drinking and gambling as signs of manhood and chauvinism." (26)

Men and even women, sought refuge in the intoxicant liquor in such harsh and insecure environment.

It is clear, therefore, from the history of pre-Islamic Arabs, that the use of alcohol was widespread and that heavy drinking and alcoholism were rampant. How then was Islam in Medina capable of producing the miraculous achievement of turning the Arabs into complete absteners, an achievement which has continued for all those who embraced Islam for the last fourteen centuries? To understand this miraculous achievement, we have to look to the nature of change that Islam brought to those who embraced it.

The change in the life of an Arab who embraced Islam was tremendous. His convictions, beliefs, attitudes, and

manners were changed. The change was not always abrupt. In fact, more often than not, it was gradual.

Islam did not primarily attack alcohol intoxication, adultery, or gambling. Islam first attacked the deep rooted false beliefs and values upon which they were based. Idolatry and tribalism and their values were the real source of Jahiliyah or ignorance. Alcoholism, gambling and adultery were simply the fruits of the tree of Jahiliyah whose main root was idolatry.[27.28] That is why Islam spent the first thirteen years of its life, the Maccan period, devoting itself to establishing the new faith in its converts. Faith that there is no God but Allah, and that Mohammad (peace be upon him) is the Messenger of God. Moslems were required to believe in the life hereafter, the presence of angels, and to believe in the truth and sincerity of previous Prophets and messengers of God (e.g., Abraham, Moses and Jesus) and the holiness of the books revealed to them by God.

Once the Arab was transformed from prostrating himself to the idols of his tribe, he was deeply changed, and was ready to obey the orders of the Almighty God of the whole worlds-seen and unseen-God whom he learnt to love more than his tribe, family, wealth and self, God whom he was feeling so near to him that he was capable of hearing what he whispers to himself.

The holy Quran says: **"We indeed created man; and we know what his soul (inner self) whispers within him, and we are nearer to him than his jugular vein."** (Sura 50, Verse 16).

قال تعالى:

﴿ولقد خلقنا الانسان ونعلم ماتوسوس به نفسه ونحن أقرب اليه من حبل الوريد﴾ ق : ١٦

The Arab, newly converted, felt the tremendous change brought to him by the new dogma. His life was never again as it was. He learnt that the tribal morals should be changed, that all people are equal "as equal as the teeth of a comb" as proclaimed by the Prophet (peace be upon Him). They only differ in their deeds.

The Holy Quran preached him the following:

"O mankind, we have created you from male and female (Adam and Eve) and have made you nations and tribes that you may know each other. Surely, the noblest among you in the sight of God is that one who fears God most. Surely Allah is All-knowing, All Aware." (Sura 49, Verse 13)

﴿ يأيها الناس إنا خلقناكم من ذكر وأنثى وجعلناكم شعوبا وقبائل لتعارفوا ان أكرمكم عند الله أتقاكم إن الله عليم خبير ﴾ الحجرات ١٣

The arrogant full-of-pride Arab, changed into a humble sincere human loving person.

The murder of female children was looked upon as one of the utmost ugly signs of the life of Jahiliya.

Family life was extolled and, being kind to children and the weak and respectful to the old, is a sign of good conduct that Islam encourages.

Ayesha was quoted by Al-Bokhari to have said, "If the Quran first told the Arabs not to drink Khamir and not to gamble or perform fornification or adultery they would have said: "No, we cannot comply." The Quran kept putting in their hearts the fear and love of God, the description of the life hereafter with its Paradise and Garden of Eden for those who obey and Hell and its Fire for those who rebel, until their hearts softened. They were commanded to stop khamir, adultery and gambling, and they complied." (29)

Even then, khamir was not abruptly prohibited. It took three years to completely ban the intoxicant liquor.

The first Quranic mention of khamir was in Sura 16, Verse 67: "**And from the fruits of date-palm and vines: you derive intoxicant liquor as well as wholesome sustenance. Lo! therein is indeed a portent for people who have sense.**" (Sura 16, Verse 67)

﴿ ومن ثمرات النخيل والأعناب تتخذون منه سكرا ورزقا حسنا إن في ذلك لآية لقوم يعقلون ﴾ النحل : ٦٧

The aya (verse) speaks of good sustenance and nourishment compared with intoxicant liquor derived from date palm trees and grapes.

Moslems began to question about khamir. The second Quranic mention about khamir was a partial answer to their questions about khamir, and game of chance.

"They will ask you about khamir and games of chance (gambling). Say: In both, there is great sin and some utility for man, but the evil they cause is greater than the benefit they bring." (Sura 2, 219)

﴿ يسألونك عن الخمر والميسر قل فيهما إثم كبير ومنافع للناس وإثمهما أكبر من نفعهما ﴾ البقرة : ٢١٩

This aya put many devout and pious Moslems away from khamir and gambling. However, because the intoxicant liquor was not explicitly banned, the bulk of Moslems continued to drink, particularly in the morning, Sabouh, and in the evening , Ghaboug (30.31.32) However, this injunction must have helped in reducing the total consumption of alcohol in Medina, the state Capital of Islam.

The third order came when one of the companions prayed while inebriate, and made horrible mistakes in reciting the Holy Quran in his prayer. (33.34)

"O believers do not pray when you are drunken until you know what you are saying" (Sura 4, aya 43)

﴿ يأيها الذين آمنوا لاتقربوا الصلاة وأنتم سكارى حتى تعلموا ماتقولون ﴾ النساء : ٤٣

After revelation of this Quranic Aya (verse), the Muazzin who called for prayers would say "no drunken man should come to prayers." (35)

This restriction was very important as drunkenness was put, for the first time, face to face, against prayers. In Islam, prayer is the most important act of worship. It is distributed through the whole day starting with dawn prayers followed by midday prayers, then late afternoon prayers, followed by sunset prayers and lastly night prayers.

In actual fact, there would be little time left for drinking if one has to attend to these collective prayers in the mosque five times a day. Surely the habitual heavy drinker has to wean himself from his habits in order to attend these five prayers in sobriety.

There was a clear conflict between this new commandment and the established Arab custom of drinking in the morning (Sabouh) and early evening (Ghaboug) . It is probable that an internal struggle would have been fought by many heavy drinkers in order to curb their drinking habits. A few chronic alcoholics might have even shown some signs of withdrawal symptoms like fits or delirium.

Honey would have been used as a means of treatment. Honey was recommended by the Holy Quran and the Prophet Mohammad as a source of good food and medicine.

Sura 16 (The Bee) verse 68-69 extolled the benefits of honey. "**There issues from within these (bees) a fluid of many hues, wherein there is cure for man.**"

﴿وأوحى ربك الى النحل أن اتخذي من الجبال بيوتا ومن الشجر ومما يعرشون* ثم كلي من كل الثمرات فاسلكي سبل ربك ذللا

يخرج من بطونها شراب مختلف ألوانه فيه شفاء للناس ﴾
النحل : ٦٨- ٦٩

Honey might have helped many alcoholics over their withdrawal symptoms. Dates and milk would have equally contributed to counteract the vitamin deficiency syndromes associated with alcoholism.

Many of those whose main source of livelihood was the intoxicating liquor were changing their trade and jobs to avoid being dependent on selling and serving Khamir.

The Prophet warned clearly that God was going to prohibit the intoxicating liquor, so that any person having his living connected with Khamir, should change his source of livelihood. [36]

Abu Huraira, the companion of the Prophet said : "Khamir was prohibited three times, When the Prophet came to Medina he found them drinking khamir, and they were gambling. They asked the Prophet about them, and God says: " **They will ask you about khamir and games of chance. Say: in both there is great sin and some utility for man."** And some continued drinking saying God has not prohibited drinking. And they drank until one of them made a mistake in his prayers and God sent Quran saying: **"O believers, do not pray when you are drunken".** Nevertheless, some people continued drinking and gambling, and God sent a stronger aya that prohibited drinking and gambling.. "**Intoxicant liquors, gambling, idolatrous practices and divining of the future are but a loathsome evil of Satan's doing. Shun it so that you might**

attain success (in this world and the day after). By means of intoxicants and gambling Satan seeks to sow enmity and hatred among you and turn you away from prayers. Will you not then, desist." And they desisted." (37)

The last blow to khamir came when a feast was held between Mohajireen (Makkan) and Ansar (those of Medina) and the liquor was served. When they got intoxicated they started boasting and then fighting with the bones of the feast. When they came round and the effect of the intoxicant vanished, they were depressed and felt sinful and guilty. The Quran came at that moment and announced that gambling and intoxicants are henceforth prohibited for all Moslems.

﴿ يأيها الذين آمنوا إنما الخمر والميسر والأنصاب والأزلام رجس من عمل الشيطان فاجتنبوه لعلكم تفلحون إنما يريد الشيطان أن يوقع بينكم العداوة والبغضاء في الخمر والميسر ويصدكم عن ذكر الله وعن الصلاة فهل أنتم منتهون ﴾ المائدة : ٩٠-٩١

"....Satan wants only to cast among you enmity and hatred by means of strong drink and games of chance and to turn you away from prayers. Will you not then, desist." (Sura 5, Verse 90-91)

The response of the whole community was remarkable. They cried: "O Allah. We have desisted."

In three gradual steps, the intoxicant was prohibited . Whenever the spiritual and moral influence of one step reached its climax, the Moslems were moved to the next step until the miracle of collective abstinence became a reality. Each stage in the collective hierarchy revealed to the

whole nation the abominable detestable ill effects of intoxication.(38)

This immediate and mass abstinence was exemplified by many incidents that reveal how quick the Moslems responded to this verbal order.

Anas Ibn Malik was serving a strong drink of fermented dates to his step-father and his friends who were all companions of the Prophet just before the final declaration of prohibition of intoxicants. Anas heard a far way call saying "Alkhamir (intoxicants) have been prohibited."

He told them what he heard, and immediately all the attendants threw away their cups and broke the large clay pots in which other drinks were kept and fermented. Some of the men performed ablution and others washed their whole bodies with water in an act of purification. They were given perfume by the mother of Anas (and the wife of Abu Talha, his step-father) and all of them hurried to the mosque where the Prophet was reciting the Quranic verses (ayas) related to khamir. (39)

Anas Ibn Malik was also quoted to say later on: "When khamir was banned, the Arabs were still loving khamir and nothing was more difficult for them than to conform with prohibition. However, they conformed well. Everyone of us who had khamir at his home brought it out in the street and threw it away. For many days the lanes and streets of Medina smelled of the intoxicant liquor." (40)

Ibn Jarir quoted this incident at the time of prohibition. A group of four were enjoying their drinks on a shady patch when one of them went to see the Prophet. He found him declaring the prohibition ayas, so quickly he returned to his friends to tell them about the new legislation. As he recited the Quranic ayas, one of them who was gulping his drink at that particular moment, pressed the cup against his mouth as a blood-letter does when he sucks the blood out of someone's wound with his specialized cup. But, instead of sucking he did this in an effort to expel whatever Khamir was in his mouth. Another who was holding his cup half-full tilted it and poured the drink on the sand . They then poured the contents of the skin bag down into the sand. (41.42)

The Prophet (peace by upon Him) asked the people of Medina to bring out whatever khamir they had at home and he, with a knife, cut open the skin bags that contained khamir.

On that day the Prophet (peace be upon Him) proclaimed his famous Hadith: "Surely Allah has cursed Al-khamir and cursed the one who brews it and the one for whom it is brewed: the one who drinks it and the one who serves it: the one who carries it and the one for whom it is carried: the one who buys it and the one who sells it." (43)

Abu Talha Al-Ansari asked the Prophet: "What to do with khamir which was inherited by children, whose main fortune was khamir? The Prophet answered: Throw the khamir in the sand. Abu Talha exclaimed: "O Prophet, these are orphans and they have no fortune. Can we be allowed to

change it to vinegar." The Prophet said: "No, throw it away." (45)

This was a great lesson to learn . Islam was always preaching against extravagance and waste of property. The property of orphans was sacred in Islamic teaching, nevertheless, al-khamir was an exception. It had to be completely destroyed.

Later on, a newly converted Moslem came to the prophet with a present, a skin bag full of the intoxicant. The Prophet told him: "God has prohibited its use." The man took it away and said: "O. K. I will sell it. " The Prophet then said: "The One who prohibited its use prohibited its selling." The man at once threw it away into the sands of the desert.

In a matter of a day or two a whole city state became abstinent and the most successful campaign that had ever been launched by man against alcohol dependence was miraculously achieved. (44)

Equally important is the fact that the number of cases that relapsed from abstinence was very limited indeed. Only seven cases were reported, and even those were successfully treated by the Islamic punishment of beating the alcoholic moderately to make him feel shame and guilt.

Since that time until the present day Moslems all over the world (about 1000 million of today's world population), are the least affected with alcohol and its problems. Though Moslems constituted different nations and cultures,

nevertheless, the majority of them kept their abstinence throughout the ages.

Arnold Toynbee in his book "Civilization on Trial" said: "Islamic spirit.. may be expected to manifest itself in ... a liberation from alcohol which was inspired by religious conviction and which was therefore able to accomplish what could never be enforced by the external sanction of an alien law... Here, then, in the foreground of the future, we can remark.... valuable influences which Islam may exert upon the cosmopolitan proletariat of a Western society that has cast its net round the world."

Even in the U.S.A where proscription of alcohol failed (1920-1933) , Islam has proved capable of solving this intricate problem. The black Americans were maltreated since the time of slavery when they were brought from West African coast to work in the field and mines. It was estimated that some 100 million African were brought from Africa in the seventeenth and eighteenth century. About 75 million died under the lashes and cruelty of the white man, who always speaks of human rights and justice. Those who remained suffered greatly: wife and husband were separated: they were forced to change their names and religion and treated worse than dogs and beasts.

Many of them were Moslems as the well-known story "Roots" claims. They were oppressed harshly and forced to change to Christianity. However, some kept their Islam secretly. When liberalization came, they were capable of proclaiming it again. Unfortunately, the majority had never heard of Islam.

Under these circumstances of insecurity, poverty, ignorance, crime; alcoholism, and drug addiction were rampant among black Americans. Many of them were beyond treatment by modern medicine and were labeled psychopaths and sociopaths.

However, the light of Islam entered their hearts and they were remarkably changed. They stopped alcohol consumption, drug addiction, and crime and were completely resurrected.

James Baldwin, a well-known black American writer who himself converted to Islam wrote in his book: "The Fire Next Time" The following passage to his fellow American blacks:

"Return to your true religion... Throw off the chains of slave-master, the devil, and return to the fold. Stop drinking his alcohol, using his dope, protect your women, and forsake the filthy swine. I remembered my buddies of years ago, in the hallways with their wine and their whisky and their tears, in hallways still frozen on the needle, and my brother saying to me once, if Harlem didn't have so many churches and junkies, there would be blood flowing in the streets.

"And now suddenly people have never before been able to hear this message (of Islam) hear it, and believe it, and are changed... (Islam) has been able to do what generations of welfare workers and committees and resolutions and reports and housing projects and playgrounds have failed to do: to heal and redeem drunkards and junkies, to convert people who have come out of prisons and keep them out, to

make men chaste and women virtuous, and to invest both male and female with pride and serenity that hang about them like unfailing light." (46)

The miracle had taken place and these harassed drunkards and junkies were completely changed by Islamic teachings.

"Life" magazine, a few years ago, wrote an article on how the black prisoners, in Washington prison, have been changed by Islam. They stopped their lewdness, iniquity, homosexuality and drug and alcohol addiction, and became straightforward chaste, and virtuous, men and women.

It is really amazing to find Islam capable of changing even those who were labeled socio - and psychopaths and whom doctors and social workers failed to treat.

How Islam managed to dry out whole communities and put them on the correct path needs further study from all nations, especially those of the West. An example has been set in front of everyone's eyes in twentieth century America. Legislation alone failed to curb the problem of alcohol consumption and drug addiction, while Islam even without the force of its jurisprudence changed the black American who embraced Islam, from crime and alcoholism to chastity and complete abstinence.

The emphasis which has so far been laid on tackling the problem of alcoholism on a personal level should change, as it has proved fruitless. The WHO report on the problem of alcoholism emphasized the failure of the present day approach of western nations towards the problem of

alcoholism. I quote the following passage from their Technical Report . (47)

"Problems related to alcohol and particularly to its excessive consumption, rank among the world's major public health problems and constitute serious hazards for human health, welfare, and life.

:"With problems of such magnitude, it is clear that even the most effective treatment programs for alcohol dependence cannot possibly constitute an adequate response. Moreover, treatment approaches have had only limited success in this field, and there is much concern at present about their cost effectiveness even when they are successful. In the light of all these considerations, it appears inescapable that the major focus of efforts to reduce alcohol-related problems must be on the area of primary prevention."

Islam provides such a successful treatment. Humanity has to study seriously Islam and how did it manage to solve such a difficult and intricate problems, both in the past and present.

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Chapter 2

Medical and Psychiatric Problems Due to Alcohol-Abuse

"The range of psychiatric, neurological, gastrointestinal, cardiac, hepatic and hematological disorders to which the consumption of alcoholic beverages may give e rise is so wide that it would be impossible to consider them all without writing a textbook of medicine". This was the conclusion of the WHO Technical Report 650 on Problems Related to Alcohol Consumption 1980.

The reader is referred to a recent symposium on ethyl alcohol and disease, the medical clinics of North America, Vol. 68, 1, Jan. 1984. It almost discussed every medical aspect of alcohol-included problems, with lucid, though highly professional, language and with more than 2,000 references.

Alcoholism and alcoholic psychosis accounted for a third of male, first-admissions to mental hospitals in 1972 in the U.S.A., for one-third of all mental hospitals in a region of France in 1974, and for half the admissions to psychiatric services in Argentina. In some areas, general hospitals are also carrying a heavy burden; in Australia, for instance, the above categories accounted for 12% of admissions to general hospitals in 1974, in addition to 40% of admissions to mental hospitals.(1)

That alcohol causes mental deterioration and psychiatric illness was known even to Arabs in their Jahiliya (pre-Islamic era). The word 'khamer', which means any intoxicant substance, originally means something that covers or robs the mind. Even before Islam has prohibited khamer, some of the companions of the Prophet, like Abubaker Alsiddiq, Ali ibn Abitalib, Othman ibn Affan, and the Prophet Mohammed (peace be upon him) himself never touched khamer, because as Othman once said: "It robs the mind and I have never seen one whose mind was robbed will ever regain it completely".

Sir Aubry Lewis(2) describes the intoxicating effect of alcohol as follows: "The acute intoxicating effect of a single dose of alcohol are either the well-known phenomenon of intoxication or an excitement, some-times with clouding of consciousness".

"In chronic alcoholic drunkards, a dementing demoralization can occur. Their narrowing of interest, superficiality of thought, weakness of memory, and moral decrepitude are reminiscent of what happens in epileptics and some early general paralytics (due to syphilis). The crudeness and even brutality of their conducts is in ill accord with their maudlin prating about virtues and their pot-house jollity. The mood of these men can be as labile as their abandonment to it, is constant. They pass from rage to weeping and laugh soon after with no shame for themselves and no thought for the miseries they put on their families".

Alcohol consumption is responsible for many hospital admissions, apart from psychiatric illnesses. In Glasgow

one in five admissions to general hospitals are alcohol related, and one quarter of the male patients had alcohol problems.[3]

WHO technical report 650,1980 concluded that alcohol-consumption is a major public health issue both in developing and industrial countries. In many countries alcohol related causes of death rank high in mortality statistics. Patients with diagnosis related to alcohol either by definition or by known etiology occupy a high proportion of hospital beds, and drinking is among the most prominent causal factor in road accidents as well as domestic injuries.

Reports from a wide variety of countries indicate that there is a global increase of health damage and social disruption due to drinking. This is especially visible in data pertaining to the burden on health facilities created by alcohol-consumption, especially in developing countries where a devastating effect of alcohol-consumption on health services is noted.[4]

The loss of key professional and technical personnel, the unnecessary diversion of scant health care resources to deal with alcohol-related illnesses and accidents is devastating .

The adverse impact of excessive drinking on the fundamental morale of a country affects the integrity of the whole nation.

Numerous studies have shown strong positive correlation between overall consumption level and various indices of health damage related to prolonged heavy use of alcohol. Table 1 and 2 show vividly this relationship.

Table 1

Relationship between Alcohol Consumption and various Indices of Harm

Alcohol Consumption, Convictions for Public Drunkenness, Cirrhosis Death and Alcohol, Related Hospital Admissions: England and Wales, 1950-1976.

Year	Ann. Per capita consumption of persons Aged 15 and over in Liters of 100% Ethanol [a]	Convictions for public Drunkenness per 10,000 population Aged 15 Years and Over [b]	Cirrhosis Deaths per million population	Hospital Adm.with Primary Diagnosis of Alcoholism or Alcoholic Psychosis
1950	5.2	14.0	23	. .
1951	5.3	15.8	25	512
1952	5.3	15.8	26	668
1953	5.1	15.7	26	775
1954	5.2	15.5	26	799
1955	5.3	15.8	26	1.053
1956	5.3	17.4	26	1.385
1957	5.3	19.3	27	1.535
1958	5.3	18.7	26	1.595
1959	5.6	18.6	27	2.044
1960	5.6	19.3	28	2.479
1961	6.2	21.0	30	. .
1962	6.1	23.3	28	. .

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1963	6.2	22.8	28	. .
1964	6.5	21.0	28	5.423
1965	6.5	19.8	29	5.774
1966	6.5	19.0	29	6.088
1967	6.7	20.3	28	6.232
1968	7.0	21.2	30	6.391
1969	7.0	21.2	32	6.689
1970	7.3	21.6	28	8.091
1971	7.7	22.9	32	9.230
1972	7.7	23.7	34	10.167
1973	7.9	25.9	37	11.565
1974	8.9	26.8	36	12.495
1975	9.4	27.0	37	12.751
1976	9.7	28.0	. .	. .

Source: **Royal College of Psychiatrists, Special Committee Report, Alcohol and Alcoholism, London, Tavistock, 1979, pp. 69, 81, 94 and 129.**

a Data for the whole of the United Kingdom

b For the years 1969-1976, the data pertain to persons aged 14 years and over.

.. = Not available

Table 2

Alcohol Consumption per capita, Arrests for Drunkenness, Crime of Assault and Battery, Cases of Drunken Driving, Alcohol-Related Traffic Accident, Death from Liver Cirrhosis, and Death from Alcohol Poisoning per 100,000 population: Finland , 1950-1975

Year	Consumption in litres of 100% ethanol	Arrests for Drunkenness	Crimes of Accidents Assault and Battery	Cases of Drunken Driving	Alcohol Related Road Traffic Accidents	Deaths from Liver Cirrhosis	Deaths from alcohol Poisoning
1950	1.73	3,668	148	...	20	...	...
1951	1.79	3,349	148	37	21	2.3	2.2
1952	1.87	3,387	145	50	25	2.5	2.5
1953	1.85	3,222	139	50	24	2.4	2.5
1954	1.88	3,030	142	46	25	3.2	2.1
1955	1.97	3,070	133	43	25	3.3	2.5
1956	1.83	2,929	123	49	24	3.0	2.8
1957	1.72	2,923	121	49	23	3.5	3.1
1958	1.62	2,763	119	58	23	3.6	3.0
1959	1.72	2,947	127	75	27	3.2	2.7
1960	1.85	2,984	125	96	28	3.3	2.4
1961	2.01	3,157	126	116	35	3.5	2.9
1962	2.11	2,933	125	119	40	3.4	2.9

1963	2.17	3,049	120	128	42	3.5	2.4
1964	2.21	2,998	119	135	48	3.5	2.7
1965	2.35	3,029	126	144	51	3.4	3.0
1966	2.49	3,157	131	152	51	3.2	3.0
1967	2.64	3,337	139	154	48	3.2	4.8
1968	2.88	3,185	155	147	45	3.6	5.2
1969	4.21	2,966	212	178	53	4.1	4.3
1970	4.30	3,722	237	197	59	4.2	4.6
1971	4.72	4,415	251	215	84	4.1	4.9
1972	5.10	4,421	265	243	70	4.3	5.0
1973	5.60	4,920	279	289	78	4.5	3.7
1974	6.45	6,098	289	350	77	5.4	5.5
1975	6.19	5,842	277	379	75	6.3	4.3

Source: **Osterberg, E., "Recorded Consumption of Alcohol in Finland, 1950-1975", Helsinki, 1979 (Report from the Social Institute of Alcohol Studies, No. 125), Osterberg, E., "Indicators of Damage and the Development of Alcohol Conditions in Finland During the Years 1950-1975," (Paper prepared for an international study of alcohol control**

... = Not available

Cirrhosis of the liver (most of it alcoholic) is the fourth most frequent cause of death in adult males in the U.S.A. (5)

In many western countries where the incidence of virus hepatitis is low, alcohol is the prominent cause of liver cirrhosis. In many of these countries death from liver cirrhosis is one of the first five leading causes of death in the adult male population.

There is a substantial evidence that risk of developing certain diseases is directly related to the quantity of alcohol consumed. Cirrhosis of the liver is probably the most well-known alcohol-associated disease. However there are a lot of other less well-known diseases which are related to alcohol consumption. Cancer esophagus, head and neck cancer and cancer of the liver (hepatoma) cancer of the bowl are all associated with high alcohol intake. Alcohol acts synergistically with tobacco to increase the incidence of upper respiratory and upper digestive tracts cancer.

Oesphagitis, gastritis, pancreatitis and hepatitis are all linked to alcohol consumption. Cardiomyopathy, hypertension and even heart attacks are all linked with heavy alcohol intake. (6)

Strokes, apoplexy, fits (especially those caused by rum), and different types of paralysis are all linked to alcohol consumption. Peripheral neuropathy, cortical atrophy, cerebellar atrophy are well-known syndromes due to alcohol consumption.

Wernickle-Korsakoff syndrome with amnesia of recent events, confabulations and retainment of memory to old

events, with different types of paralysis are mainly due to thiamin deficiency due to excessive alcohol intake.

Beriberi and other deficiencies are not uncommon among alcoholics. Even Pellagra occurs in alcoholics. The rare Marchia fava disease which affects the corpus callosum of the brain, and central Pontine myelinosis are serious but, fortunately, rare sequelae of alcohol consumption. Retrobulbar neuritis and blindness is common in those who drink methylated spirits, (wood spirits), as it happens in degenerate alcoholics, or where alcohol is completely banned and alcoholics are not treated. Rarely, ethanol causes retrobulbar neuritis.

Delirium tremens is a serious complication that may occur during intercurrent infection of alcoholics or post operatively. It also occurs during abstention as a sign of withdrawal effect. It is quite serious and may cause death even if treated in well-equipped centres.

Numerous endocrine disorders have been associated with alcoholism ranging from myxodema to hyperthyroidism and florid Cushing syndrome.

Hematological ill effects are long and variable. Folic acid deficiency, however, is the most common manifestation of alcoholic abuse resulting in macrocytic anemia. Zeive syndrome is a triad of hemolytic anemia, jaundice and hyperlipaedemia that follows alcoholic binges.

Thrombocytopenia and other platelet abnormalities are not rare in alcoholics.

Drug interaction with alcohol even in moderation, is receiving a major interest from the medical profession.

Many drugs interact badly with alcohol ranging from the well-known antabuse "disulfiram to the severe hypoglycemic attacks occurring in a diabetic taking oral hypoglycemic drugs or even insulin. The biguanides e.g., metformin are known for causing hyper lactic acidaemia especially when they are taken with alcohol. The commonly used metronidazole "Flagyl" interacts badly with alcohol.

All sedatives, tranquilizers and anti-epileptics are potentiated with alcohol.Interaction with anticoagulants also occurs. The list is really very long and no attempt is made here to cover it.

Recurrent infection is very common in chronic alcoholics. The resistance to disease and the immunological defense system are compromised by alcohol intake.

Chest infections are notorious in alcoholics. Pneumonia, lung abscess, empyema and pulmonary tuberculosis are all common in alcoholics.

During acute alcoholic intoxication, the drunk usually vomits, the cough reflexes which are protective, are paralysed. The vomitus thus easily passes to the lung causing pneumonia or lung abscess; on occasion it may even cause suffocation and death.

Alcohol intake is also connected with gout. It is not uncommon that a person will suffer from acute gouty artheritis after an alcohol binge. Muscle necrosis, myoglobinuria with severe renal damage may occur in

chronic alcoholics. Muscle pains and aches are not uncommon even in acute cases of intoxication.

The ill effects of alcohol consumption in women deserves special attention. Females are more vulnerable to alcohol-related cirrhosis than men.[7] During pregnancy alcohol consumption affects the foetus badly. Foetal-Alcohol syndrome is becoming recognised more and more in the medical profession. (Table 3)

Table 3

Foetal-Alcohol Syndrome

Microcephaly (Small Brain)

Micrognathia (Small Jaws)

Micropthalmia (Small Eyues)

Cardiac Defects

Growth and Mental Retardation

The effects of alcohol on the nervous system are summarized in the following table. (Table 4)

Table 4

Acute Intoxication	Confusion, disorientation, ataxia nystagmus, Coma
Withdrawal States	Delirium tremens, hallucination, fits
Nutritional Deficiencies	Wernickle-Korsakoff Syndrome, Polyneuropathy, Pellagra
Toxic Lesions	Cerebral atrophy, Cerebellar atrophy, Marchiafava- Bignami diseases. Central Pontine Myelionosis. Retrobulbar neuritis
Cerebral Injuries	Sub-dural haematoma. Saturday night paralysis
Hepatic Neuro-Psychiatric Disorders	End stage of hepatic failure.
Fetal Alcohol Syndrome	Microcephaly, Micrognathia, Micropthalmia Cardiac defects and Growth and Mental defects

Skin diseases are also related to alcohol indulgence. Certain types of Porphyria, especially the hepatic prophyria,

is induced by alcohol intake. Zinc deficiency is induced by indulgence in alcohol. The manifestation of zinc deficiency are acute and chronic. The acute ones are characterized by vesiculo pustular eruptions with marked erythema that turns into hemorrhagic erosive lesions with crusts, mainly around the body-orifices (mouth and perianal region) and extremities.(8)

The chronic manifestation presents with warty (verrucous) patches on the extremities. Eczema, alopecia, nail dystrophy, paronychia (infection around the nails) and angular stomatitis (inflammation of the angle of the mouth) are common presentations.

Acute Alcoholic Intoxication

The above-mentioned ill-effects are usually related to chronic alcohol consumption. What about the acute effects of just one drink of alcohol?

The earliest symptoms of intoxication are those of altered behaviors and judgment. Even at 50 mg of alcohol percent in the blood, altered behavior is noticed. The judgment is impaired and traffic accidents increase exponentially. Accidents at work, crimes of violence, rape and incest are all related to even moderate intake of alcohol.

Alcohol is a depressant and has a paralytic effect on the central nervous system, the higher functions being affected first. Alcohol directly depresses the higher cortical centres, where the faculties of judgment and control of behavior are found. The Arabic word for mind is "aqal." Aqal means something that restrains, and since khamir (Arabic world for

intoxicant) means cover, the aqal, or mind, is covered and robbed by khamir (alcohol).

The loss of this faculty is the cause of the tremendous increase of traffic accidents, work, and home accidents, and injuries and a gamut of violent crimes ranging from rape to murder.

The blood level of alcohol in such persons ranges from 50 mg to 150 mg / 100 ml.

The ability to carry coordinated and complex motor acts is impaired at this level. The speech becomes slurred. The conjunctiva congested, and the pupils dilate (but still reactive to light). Nystagmus (involuntary eyeball movement) and ataxia (loss of muscular coordination) become invariably manifest.

Vomiting occurs even before unconsciousness occurs. the level of consciousness becomes impaired and finally lost when blood alcohol level reaches 200 mg per cent. Vomiting in an unconscious person is pretty serious. The protective cough reflex becomes paralyzed and the vomitus easily passes from the pharynx to the larynx and trachea instead of passing to the esophagus (gullet) and stomach. This results either in suffocation with serious sequelae, or serious lung infection will occur. e.g. pneumonia, lung abscess and empyema.

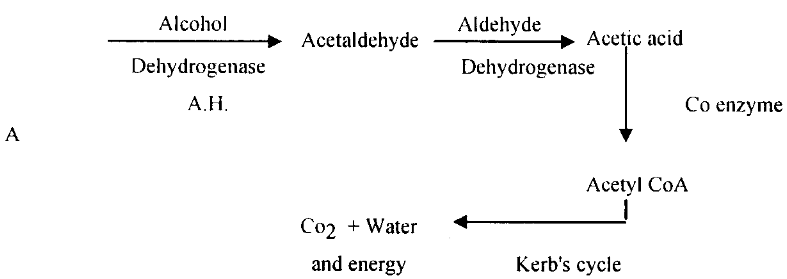
HOW ALCOHOL IS METABOLIZED

Alcohol is absorbed rapidly from the gastrointestinal tract especially so if the stomach is empty. Ethyl alcohol is then delivered to the liver where it is metabolized.

Ethanol (ethyl alcohol) is metabolized in the liver by three pathways into CO_2 (carbon dioxide), water and energy. Each gram of alcohol releases 7 calories of energy, while a gram of carbohydrate or protein will only release 4 calories.

The hepatocyte (liver cell) contains three pathways of ethanol degradation, each located in different sub cellular compartment viz.: a) alcohol dehydrogenase pathway, which is the most important one, is found in the soluble fraction of the cell (cytosol) (9.10)

In this pathway alcohol is degraded to acetaldehyde by alcohol dehydrogenate enzyme. Acetaldehyde is changed to acetic acid (acid of vinegar) which enters the carboxylic acid (Kreb's) cycle to be consummated to carbon dioxide, water and energy.



b) the microsomal ethanol oxidizing system (MEOS) is found in the endoplasmic reticulum.

c) the catalase enzymes located in the peroxisomes of the hepatic cell.

The release of hydrogen by alcohol dehydrogenase (ADH) alters the rebdox state NAD-NADH, and is responsible for lipid and carbohydrate metabolism derangement. It is also suspected to decrease protein synthesis and increase collagen fiber deposition which ends in cirrhosis. (9.10)

The acetaldehyde formed is not completely metabolized into acetic acid. It affects the mitochondria and cell organelles, especially those of the liver and brain. Acetaldehyde also alters brain neuramine metabolism which is associated with alcohol dependence. (11.12)

There is also increase breakdown of Vitamin A, mainly via the MEOS, leading to depletion of Vitamin A. This leads to enhanced microsomal activation of hepatotoxic compounds including drugs and carcinogens. (13.14)

The impairment of Kreb's cycle also results in formation of more triglycerides. Ethanol also increases the absorption of fats from the intestines. It also has the effect of mobilizing the depot fats of the body into the circulation. (15)

This leads to accumulation of fats in the liver, causing fatty liver and associated hypertriglyceridemia (increased fats in the blood). (16)

The acetaldehyde is toxic to the key cellular functions, particularly the mitrodrondria. The electron microscope shows swelling of the crista of the mitrochondira, and the functions of the mitochondria (the lung of the cells) are depressed.

The acetaldehyde also decreases liver glutathione. Since glutalhione is a scavenger of toxic free radicles, the decrease of liver glutathione results in increase of the toxic free radicles and enhanced lipid peroxidation; both factors participate in causation of fatty liver. (17)

Ethanol disturbs Kreb's cycle, causes an increase of lactate and a decrease of pyruvate. The end result is an increase of ketone bodies (B hydroxybutyrate, acetoacetitic and acetone). This results in ketoacidosis and hypoglycaemia, both of which have serious deleterious effect on health and may end in fatalities.

The effect in diabetics is compounded by the hypoglycaemic drugs taken by the patient. These end in severe hypoglycaemia and/or acidaemia.

Lactic acidosis when it occurs disturbs urate excretion and hence may precipitate gout.

It is clear from the above mentioned facts that the deleterious ill effects of alcohol-consumption are numerous and endanger greatly the health of the individual and community.

It is therefore of paramount importance to study how Islam and the Moslem community managed to curb this problem for the last 1400 years. It is the only community in human history that managed to proscribe alcohol successfully for such a long period.

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Chapter - 3

Alcohol and Cancer

Introduction

Alcohol dependence is a world wide problem, more intense and widespread than other drug dependencies combined, with the exception of tobacco. In all countries were alcohol drinking is legally permitted, the majority of the adult population drink with some 10 percent suffering from problems related to alcohol. (1-4) The 32nd World Health Assembly 1979, resolution 32.40 declared that "Problems related to alcohol and particularly its excessive consumption, rank among the world's major public health problems and constitutes serious hazards for human health, welfare and life. 4 The annual death toll due to tobacco, alcohol and other illicit drugs for U.S.A. and U.K. is as follows: (5-9)

	U.S.A	U.K.
Tobacco	400,000	110,000
Alcohol	125,000	40,000
Drug(Heroin)	6,000	159
Population (1995)	245,000,000	55,000,000

Tobacco smoking is responsible for 30-40 percent of total cancer mortality while alcohol drinking is responsible for 3-4 percent. (10,11) The confounding and synergistic action of both drugs make it difficult to pinpoint the specific role of each, since most heavy drinkers are also heavy smokers.(12.17)

Despite these problems and many others, many studies demonstrated the relationship between alcohol and cancer. Prospective studies of drinkers and alcoholics show an increase of about 70 percent in death from cancer(18,27,28) The majority of these deaths are related to the strong association of heavy drinking with heavy smoking. In a series that used contemporaneous controls matched for smoking history, Klatsky found a 40 percent excess cancer mortality in a group of heavy drinkers. (10)

Epedemiologic studies show an increased risk of cancer with increasing exposure to alcohol. There is a logarithmic rise in cancer esophagus with increasing alcohol exposure.(29)

Similar studies of upper aero-digestive tract cancers confirm the dose response relationship. (13.17)

Alcoholic beverages contain many carcinogenic substances. The type of beverages however,, is of little importance compared with the amount of alcohol(13.13.30)with the exception of apple brandy which has been implicated in the high incidence of esophageal cancer in the Normandy region of France and red wine implicated in cancer of the stomach. (21.29.31.32) However,

there is strong synergism between alcohol and tobacco, the first being a co-carcinogen which dissolves tobacco carcinogens and hence increasing mucosal concentration of these substances.(13) For laryngeal cancer there is 50 percent more risk of cancer with combined exposure than the summation risk of both substances. (33)

For esopharyngeal cancer, Rothman estimates that 43 percent of the disease can be attributed to alcohol, 33 percent to smoking, and the rest being to the synergistic action of both substances. (34.35)

Head and Neck

The association of squamouse cell carcinoma of the head and neck with excessive drinking of alcoholic beverages was first noted in the 19th century. (13.34) Wynder demonstrated a ten fold increase of laryngeal cancer in people who drank more than 7 ounces of whiskey daily. Subsequent case-control studies have shown similar results in oral, pharyngeal and laryngeal carconomas. The effect of alcohol in these cancers is not due to a confounding effect of tobacco, alcohol is as important as tobacco, other etiologic factors e.g. poor dentition, hot beverages, deficiency of vitamins A and C, asbestos are less important than alcohol and tobacco.(36.41) Case control studies of the risk factors for carcinomas of tongue, gum floor and other specified parts of the mouth were strongly linked with tobacco smoking and alcohol (wine, malt and other hard liquors). (41.43)

Esophagus:

Esophageal cancer has been linked to tobacco smoking, chewing and alcohol intake. In American and European studies, alcohol has long been recognized as an important etiologic factor.(17.44.47) The incidence of Cancer esophagus in Europe is greatest in France, the varying rates in that country are proportional to alcohol intake. The relative risk is 18 in those who drink more than 10 units daily, and if they smoke 20 cigarettes a day the risk is 44 fold non smoker teetotaler. (6)

The relative risk for esophageal cancer rises logarithmically with increasing use of alcohol and it is dose related. For heavy drinkers the risk factor is 20, even after correction for tobacco use.(29) For Western countries, about 80 percent of esophageal cancer are attributed to alcohol and tobacco abuse. (6,7,13,29,45)

There are other known causes of esophageal cancer e.g., iron deficiency (Plummer-Vinson syndrome), ingestion of mate, corn or wheat based diets, deficiencies of riboflavin, nicotinic acid and zinc, and consumption of very hot drinks and foods. (13.29.45.47)

The high incidence of cancer esophagus in China is not related to alcohol consumption.(47) Similarly the high incidence in Saudi Arabia is not related to alcohol, whereby alcohol is proscribed and a very small percentage of the population drink secretly or when going abroad. Other factors e.g., iron, dietary deficiencies and consumption of very hot drinks and foods are blamed. (48)

Stomach:

There is an association between tobacco smoking, alcohol drinking and gastric carcinoma. (13,32,49) Flamant and McDonald found that cancer of the Cardia is more related to alcohol than other parts of the stomach. (50) Wine consumption in France is particularly related to gastric carcinoma, a high risk of 6.9 with heavy drinkers compared to non drinkers. (32,50,51)

Pancreas

Alcohol is an important cause of acute and chronic pancreatitis in Western countries . In some series there is a high incidence of carcinoma of the pancreas. (6,52,53)

Rectum Cancer:

Population statistics show an association between consumption of beer and rectal cancer in the U.S. (54,55) McMichael and Potter found similar association in the United States, United Kingdom, Australia and New Zealand, whereby beer consumption was related to colorectal cancer.(56,57) Data from the Third National Cancer Survey also supports the association between alcohol and colorectal cancer. (49) A study of Irish brewery workers showed an increased risk of rectal cancer of 180 percent. (58) A similar study in Denmark showed a modest increased risk. (59)

Nevertheless the role of fat and low fiber seems more important in causation of colorectal cancer than alcohol. (17)

Liver

Liver damage is a common sequelae of alcohol ingestion. The alcohol consumption per capita in a country is directly related to liver cirrhosis. In France and Italy where the highest per capita alcohol consumption is found in Europe, the incidence of liver cirrhosis mortality is highest.45-50 per 100,000 population,(4-8,60) Some 10-15 percent of those suffering from liver cirrhosis will develop liver cancer.(6,8) However , autopsy findings show a much higher incidence (30 percent) of hepato cellular carcinoma in alcoholic cirrhosis patients . (61, 62) In a retrospective veterans administration study, Keller found a 30 fold increase in the relative frequency of liver cancer in those suffering from alcoholic cirrhosis compared with those without cirrhosis.(63)

Hepatocellular carcinoma is strongly related to hepatitis B and C viruses, the malignant change being facilitated by the hepatotoxic effects of alcohol.

Cancer of the Breast:

There is some increased risk of breast cancer associated with a alcohol and cigarette smoking .(67) The relation with high intake of fat of animal origin is even more strongly related with breast cancer.(68)

Cancer of the Lung.

This is increased in heavy drinkers of alcohol by 50 percent.(10) However,many experts deny this association.(13,54)

In Conclusion:

Heavy smoking and heavy drinking are linked with many cancers. There is strong synergism between the carcinogenic and cocarcinogenic substances in these two addictive drugs. Aerodigestive cancers features prominently in this respect. Alcohol is also associated with cirrhosis of the liver and liver cancer. It is also associated with cancer of the stomach, pancreas and tenuously associated with breast cancer and lung cancer. Primary prevention will call for abstention from intake of both tobacco and alcohol.

Islamic teachings clearly prohibit alcohol intake. The Holy Quran has emphatically prohibited alcohol intake since 1400 years. "O ye who believe. Intoxicants and gambling, dedication of stones and divination by arrows are an abomination. The Sattan wants only to cast among you enmity and hatred by strong drink and games of chance, and to turn you away from prayers. Will you not then desist?"(69) The response was very remarkable indeed. The whole community of Medina cried "O Allah, we have desisted." Since then Muslim communities are the least affected by alcoholic beverages (AlKhamir). The majority of Muslims will never touch alcohol in their whole life , and many will never have seen it.

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Chapter -4

SOCIO-MEDICAL PROBLEMS RELATED TO ALCOHOL CONSUMPTION

Abstract

Alcoholic beverages have been used since antiquity. Unfortunately, the last three decades have seen a tremendous increase in its consumption, both in the developed and developing countries.

As a consequence, the socio-economic losses have been staggering. Alcohol consumption is a major factor in road accidents, industrial injuries and crimes of violence. Industrial loss is enormous, and in many countries alcohol abuse is the major cause of absenteeism, loss of production and hooliganism. Crimes of violence such as incest, rape and other sexual offenses are more often than not committed under the influence of alcohol; wife and child batterers are usually heavy drinkers. In this chapter, the increasing incidence of alcohol dependence and the ensuing socio-medical problems are explored.

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Since alcohol was first discovered it has been used for many purposes, including real and imagined benefits. 'As a social lubricant, aperitif and mild "anesthetic" it holds pride of place; as a drug of addiction, a physical poison and a

community evil it has no equal."(1) The greater part of the total harm arising from alcohol consumption within a community results from the large number who drink moderately, rather the leratively few who drink heavily. Reduction in the moderate drinking of the majority will have a far better effects on the health of a community than comparable efforts to rescue or treat alcoholics. (2)

Extent of the problem

Although the consumption of alcohol has been indulged in by man for thousands of years, the global increase in imbibing over the past three decades is truly alarming - the total world consumption has never been so high.(3) Probably the best criteria to estimate the marked increase of alcohol consumption are total and per capita consumption in different countries during a certain period of time.

Table 5.

UK alcohol consumption:

	1965	1975
Beer	30.3	40.1 (Million bulk barrels)
Spirits	17.5	31.6 (Million proof gallons)
Wines	35.6	77.5 (Million liquid gallons)
Populations: Over 15 years	41.531	42.887 Million

Table 6

Alcohol consumption in litters of pure alcohol (100%) per person per year (4)

Country	1950-1952	1960-1961	1971
France	-	18	16.7
Italy	9	13	13.9
W. Germany	3.1	8.5	12.3
Spain	7	6.7	12.0
Austria	6.5	6.8	11.4
Argentina	8	7	10.9
Hungary	6	6.7	9.5

The World Health Organization committee on Alcohol-Induced Problems found that per capita consumption of alcoholic beverages had been increasing throughout most of the world in the last twenty years. Between 1960 and 1972, for example, recorded worldwide production increased by 19 percent of wine, and by 68 per cent for distilled spirits. Both industrialized and developing countries in various regions of the world showed that the annual consumption of alcoholic beverages, in terms of 100 per cent ethanol (ethyl alcohol) was above eight litters per capita in only two

countries in 1950, but by 1976 this level was reached in 22 countries.[3]

A WHO report in 1982[5] showed that by 1982, beer production had increased by 124 per cent worldwide. In some countries in Asia, the increase was horrendous - in the order of 500 per cent. In some African countries an increase of beer consumption was reportedly as high as

400 per cent. Even in remote villages in many third-world countries, alcoholic beverages were consumed even while they lacked clean water, sewage disposal and primary health amenities.

There is a consistent correlation within a community between per capita consumption of alcohol and crimes of violence, traffic accidents, major industrial and economic losses, cirrhosis of the liver, death from alcoholism and its related diseases.

In the UK, the per capita spending on alcohol has increased by 76 per cent in a ten-year period (1960-1970). The adult population in the UK drank about twice as much alcohol in 1984 as it did in 1950. Spirit consumption increased by 135 per cent, while wine consumption increased by 250 per cent. [6] Losses due to alcohol consumption are so great that it is impossible to list all the consequences which now befall mankind from this menace.

In 1979, members of the executive board at its 63rd session, and delegates from numerous countries attending the 32nd World Health Assembly, confirmed that alcohol problems now rank among the world's major public health

concerns (WHO Resolution 32,40).[3] Alcohol problems in many parts of the world constitute a serious obstacle to socio-economic development and threaten to overwhelm the health services.[3] A summary of the major losses is given below.

Socio-economic losses

Although the alcohol industry seems to benefit a few big international industrial companies and provide jobs for many workers, and even seems to increase state revenue by levying taxes on alcoholic beverages, the truth is that the total socio-economic loss is so enormous that the benefits become trivial. The deleterious effect on health, welfare and social consequences of alcohol consumption will more than tilt the balance towards the benefits of proscribing, or at least limiting, alcohol consumption.

The cost of alcohol abuse of a society is difficult to measure. In the USA, it was estimated that $30,000 million were lost due to alcohol consumption in 1971. [1] Table 7 shows some of these losses. By 1979, these estimated costs were put at $43,000 million,[3] any by 1986 the estimates had reached the staggering figures of 120,000 million. The UK spent £3,000 million sterling on alcohol in 1971; a figure which had increased to £11,434 million in 1984. [6] France, in 1971, spent an equivalent amount ($7,000m annually). [8] West Germany in 1971 was spending DM27,584 million on alcohol, compared with DM. 12,756 on smoking.

Table 7

Estimated economic costs in the USA in US dollars:

	1971 $ Mill.	**1979 $ Mill.**
Lost industrial production	14,869	77,546
Health care costs	8,293	20,465
Road accidents	4,666	6,768
Violent crimes	1,466	4,977
Social response	-	3,467
Fire losses	-	647
Total	**29,294**	**113,870**

Alcohol features prominently in traffic accidents.* The WHO suggest that it is involved in about fifty per cent of all traffic accidents. Even in countries where alcohol and addictive drugs are banned, like Saudia Arabia, the director of the department of alcohol and drug control claims that

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* From Royal College of Physicians: A great and Growing Evil: the medical consequences of alcohol. Tavistock Publications, London 1987. p.9

about fifty per cent of long-distance road accidents are due to alcohol and drug abuse. (9)

In the USA,25,000 deaths occur annually due to accidents caused by alcohol consumption. Another 15,000 deaths occur due to diseases caused by alcohol, and another 15,000 due to suicide, murder and other crimes committed under the influence of alcohol. 10 The risk of accident is exacerbated when blood alcohol levels exceeds 50 mg per cent; at blood alcohol levels of 200 mg per cent, the risk is a hundred fold above that of the non-drinker.(1) It is estimated that some 500,000 people die annually due to tobacco and alcohol consumption in U.S.A.*

Alcohol also plays a prominent role in crimes of violence, Nearly 70 per cent of murders are committed under its influence. The WHO, after studying violent crimes in thirty countries, came to the conclusion that 86 per cent of murders and 50 per cent of rapes and other crimes of violence were committed under the influence of alcohol. (11)

In the ***Daily Mail*** of 26 June 1980 Lord Harris - who headed a commission on prison population - is reported as saying that the majority of criminals were suffering from

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* Evertt Koop, Surgeon General of USA, declaration published in Time magazine 30 May, 1988. p.47, whereby the victims of tobacco in the USA were estimated at 350,000 (plus 50,000 for passive smoking and chewing tobacco) and the victims of alcohol were estimated at 125,000 annually.

alcohol-related problems. At least fifty per cent of the worst crimes were committed whilst under its influence.

Industrial losses are enormous. In Scotland alone, they reached £100 million annually.(12) In the USSR, alcohol abuse was the most important cause of absenteeism and loss of production. (13)

The WHO Technical Report 650 of 1980 cities the following consequences of alcohol abuse: absenteeism, illness, decreased quality of work, difficulties in work relationship, accidents and loss of trained personnel. Many countries, especially in the third world, suffer badly from loss of management and trained staff due to alcohol abuse.

A lot of other social problems arise out of alcohol abuse. Seventy-four per cent of wife and child batterers are heavy drinkers. Incest, rape and other sexual crimes are frequently committed under the influence of alcohol. Divorce and separation are often the ultimate results of indulgence in alcohol.

The price paid in human misery, poverty, broken homes and social degradation is beyond calculation.

Incidence of alcohol dependence

The term 'alcohol dependence' has replaced the rubric 'alcoholism' which is a derogatory, unspecified term. Alcohol dependence is manifested by overt drinking behaviours, a continuation of drinking in a manner not approved by one's culture, and changed behavioural state.

The dependent person's control over his drinking becomes impaired, his craving for drink becomes relentless, his thirst unquenchable; planning for drinking takes precedence over all other activities. Altered psychosomatic states occur, wherein the dependent person experiences the psychological and/or somatic signs of withdrawal during periods of abstinence. There is also increased tolerance, whereby the effective dose of the intoxicant has to be increased in order to get the same pharmacological effect and satisfaction from the drug abused.(14,15)

It is estimated that at least one in ten of those who drink alcohol, even occasionally, will become alcohol-dependent. In the USA, the majority of the adult population drink. Some 100 million Americans drink alcoholic beverages at least occasionally.(14) The statistics seem to show that practically every seventeen or eighteen-year-old will have experimented with at lease one drink. As many as 50 to 85 per cent of high school students drink at least occasionally. The average age at which youth begins to experiment is 13 to 14 years. (16) In Scotland, 92 per cent of boys and 85 per cent of girls have experienced alcohol by the age of fourteen.(17) **In** the age group 17-30, no less than 87 per cent of men and 60 per cent of women are regular drinkers.(18)

Youngsters are more prone to heavy drinking when they are exposed to alcohol. In Scotland, 70 per cent of boys and 61 per cent of girls admitted to heavy drinking occasionally, while 40 per cent of boys and 32 per cent of girls (15-16

years) are regular heavy drinkers.[19] Sixty per of Glasgow's six-year-olds had tried alcohol. [17]

More women are becoming exposed to drinking. Heavy drinkers among women rose from 4 per cent in 1972 to 11 per cent in 1978.[20] In the USA, 93 per cent of teenagers(12-17 years) have experienced alcohol and 1.2 million teenagers drink regularly. [21]

In the former USSR region, the problem seems even worse. Ninety per cent of all cases of acute alcoholic intoxication being treated for the first time are individuals under fifteen years of age; one-third of them are under ten years of age. [22] Fifteen per cent of the adult population are at present getting treatment for alcohol dependence.

Due to this high consumption of alcohol, there are hundreds of millions who suffer from alcohol abuse annually in the whole world.In the USA, it is estimated that ten million individuals are suffering from deleterious effects of alcohol abuse.[10] (problem drinkers and alcohol dependent). Tens of millions of people are involved with alcohol-dependent persons. [16] In France and West Germany, there are 2.5 million alcohol-dependent persons for each country, while in the UK the figure is lower, 0.5 to 1 million. Those who are labeled heavy drinkers (more than 51 units for males and 35 units for females.), amounted to 3 million in England and Wales in 1981.[23]. In the USSR, a staggering figure of 25 million individuals puts the region on top of the world as the first alcohol-dependent country. In France, one-third of the electorate get some or all of their

income from the production and sale of alcoholic beverages. [24]

It is estimated that 40,000 deaths occur annually in the UK due to alcohol consumption. Though this figure is staggering, it is less than half those killed by smoking cigarettes (100,000). Nevertheless, heavy drinkers have a mortality rate that is more than twice that of the normal population. [23]

The 1980 WHO Technical Report on Alcohol, claims that in many countries the heavy drinkers and alcohol-dependents constitute 4 to 10 per cent of the whole population. The WHO Expert Committee on Drug Dependence concluded that: " In many parts of the world, problems associated with the use of alcohol far exceed those associated with the non-medical use of less socially accepted dependence-producing drugs such as amphetamine, cannabis, and morphine types. " [3] The reason for this widespread alcohol dependence emerges from the fact that many civilizations look upon alcohol drinking, at least in moderation, as normal and socially acceptable behaviour. "Alcohol is such a permissible and trusted poison, so easy of access for those who wish to escape from their troubles that it is resorted to in excess by maladjusted persons." So said Sir Aubry Lewis, writing in Price's Textbook of Medicine.[25]

Even in Muslim countries where alcohol is completely banned by Islam, alcohol dependence is becoming a problem that has to be tackled. In Khartoum (Sudan)

Dr. al-Bager studied the incidence in 1975-1976.[26] He found the following important facts:

1- That females rarely drink alcohol;

2- That most of those who drink alcohol started at the age of 16 or over;

3- That the majority of alcohol drinkers do not drink at home, where there is still strong opposition within the family;

4- That male adult population in Khartoum province in 1975 was 417,820. Forty-seven per cent of them have tried alcohol at least once. Eighty-seven per cent of those who drink are social drinkers, while the remaining 13 per cent are regular daily drinkers who are starting to have some problems as a result of their drinking habits.

5. Divorce was five times higher in those who drink compared with non-drinkers.

6. Twenty-two per cent of those who drink do so because of psychological problems, while 9 per cent do so because of problems at home.

7. Fifty-two per cent of all traffic accidents in 1975-76 were committed under the influence of alcohol.

8. The amount spent on alcoholic beverages (£10m.Sudanes) represents double the amount allocated to the Ministry of Health in 1975. In Bahrain, a small Gulf country, the consumption of alcohol is very high indeed. As much as 9 million Kg. of alcoholic

beverages were consumed in 1981. The total annual cost was estimated at £3195 million. [27-28] Medicine Digest [5], summarized the WHO 1982 report on alcohol and its problems. Most Islamic countries have minor problems related to alcohol consumption.

Saudi Arabia, Iran, Kuwait, Qatar, Libya and North Yemen were all prohibiting alcohol in 1982. By 1984, Pakistan and Sudan had followed suit, while Egypt and Bahrain allowed alcohol in tourist places, both for indigenous persons and foreigners.

Unfortunately, many Muslim governments have tried to spread alcohol consumption against the will of the majority of the populace. In Egypt, Turkey, Tunisia, South Yemen, Indonesia, Iraq, Syria and many others, the governments not only encourage private enterprise in the brewing industry, but the governments themselves either share, or own outright, the breweries and alcohol factories. They help spread alcohol consumption in their nations on the assumption that they will increase their income and provide more jobs for the unemployed.Some governments see in alcohol a distraction from active politics. The ill-effects that ensue from this policy are well manifested by the staggering size of debts owed to the international banking system.

Though the majority of the masses in Muslim countries abstain from alcohol despite the incitement by their governments - the elite are unfortunately entangled in the cobwebs of problems that come with alcohol consumption. This is entirely due to the contradictory effects of westernization on the elite and the junta, who are deeply

hypnotized by the western civilization and who try to promulgate its values to a completely different culture.

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Chapter -5

SOME MISCONCEPTIONS REGARDING THE HEALTH-PROCURING PROPERTIES OF ALCOHOL

Abstract

Claims have been made for and around the health-procuring properties of alcohol since antiquity. The pre-Islamic Arabs of *Jahiliya* were among the staunch believers of the medical powers of liquor. When Islam proscribed alcohol, many of the newly-converted to Islam tried to convince the Prophet Muhammad (PBHM) that they used liquor only for its medical powers and health-procuring properties. The Prophet told then that it is no medicine, it is a cause of disease and ailment. Nevertheless, the misconception continued long after Islam was established. Many renowned physicians, such as Abu Bakr Al-Razi (Rah) and Ibn Sina (Avicenna), believed in the benefits of moderate drinking and considered it health-enhancing. Laymen still believe in these properties. These misconceptions are discussed and shown to bee lingering myth from bygone days.

Since ancient times, alcoholic beverages have been used not only as a social lubricant, aperitif, and a source of pleasure, but also as a remedy for many different ailments and diseases, ranging from insomnia and indigestion to

angina pectoris and heart attacks. The list of diseases for which alcoholic beverages were used as a remedy was indeed extensive.

'Alcohol' is a generic term used by scientists t denote a particular family of chemical compounds with similar structures and properties. Among these are methyl alcohol, also known as methanol or wood spirit because it was originally made by destructive distillation of wood. It is the simplest in structural formula (CH_3OH) and is used as antifreeze. Unfortunately, it is also used by some chronic degenerative alcoholics at times when other alcoholic beverages are not available. It causes blindness (optic atrophy) and death due to its toxic effect on the heart muscle. It was used illicitly during the prohibition years in the USA (1919-1933) - when it caused many deaths due to its cardiac toxicity, and many others suffered blindness. It is still occasionally used when ethanol is not available, in places such as Saudi Arabia and the Yemen. *

The next alcohol in the chemical structure is ethyl alcohol, or ethanol (C_2H_5OH) . Ethanol is found in all alcoholic beverages, e.g. beer, ale and cider; the concentration of alcohol is usually less than 8 per cent . In wines, e.g. champagne, muscatel and sherry, the

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* Many incidents of methanol intoxication occur in Arabian Gulf countries, where ethanol is illicit and cologne containing methanol is imbibed, resulting in blindness and death. In India, hundreds died in May, 1992, due to drinking adulterated liquor which contained methanol.

concentration of alcohol is usually less than 8 per cent . In wines, e.g. champagne, muscatel and sherry, the concentration varies from 10-25 per cent, depending on whether or not the wine is fortified by the addition of distilled spirits.

Distilled spirits contain the highest concentration of alcohol, as they are prepared by distillation. Whisky, brandy, rum and gin represent this group and contain 40-50 per cent alcohol. One hundred proof means an alcoholic beverage that contains 50 per cent alcohol by volume.

The first man to distill alcohol was Jabir ibn Hayyan, in Baghdad in 185 Hijrah (AD 800). (1) The word 'alcohol' is derived from the Arabic word 'al-Ghul', meaning something that intoxicates or destroys the brain. Whenever the word alcohol is used in everyday language, it usually refers to ethyl alcohol or ethanol.

PRE-ISLAMIC MISCONCEPTIONS OF ALCOHOLIC BEVERAGES.

The Arabs in 'Jahiliya (pre-Islamic) used alcohol to boost courage and benevolence. The poet of Prophet Muhammad (PBUH) Hassan ibn Thabit al-Ansari, before Islam, said, "When we drink liquor we become like kings (in our benevolence) and during fight we become lions who never waver or falter from confrontation."

The following traditional sayings and deeds of the Prophet Muhammad (PBUH) illustrate the deeply-rooted beliefs in the medicinal powers of liquor held at the time of the Prophet:

1- Wa'il al-Hadrami related that Tariq ibn Suwid said to the Prophet: "O Messenger of Allah, In my land there are vineyards and we make wine and drink it". To which the Prophet (PBUH) said: 'Do not drink from it ." Tariq then said, "We use it as a cure for the sick." The Prophet answered, " It is no cure. It is itself a disease.(2)

2- Some people from Yemen came to the Prophet (PBUH) and asked him to allow them to drink liquor made from wheat (ale) in order to fight the cold weather of their mountainous area and help them in their hard tasks. The Prophet asked if the liquor was intoxicating. The man who spoke for the Yemeni delegation (Daylam al-Himyairi) said it was. The Prophet answered:' Then you have to stop drinking. (3)

3- The Prophet (PBUH) said, "Allah has sent down both the disease and the cure and He has appointed a cure for each. So treat yourself medically but use nothing unlawful." .

4 -It is clear from these Ahadith that the Prophet Muhammad (PBUH) had emphatically denied any medicinal properties from liquor.

MISCONCEPTIONS AFTER ISLAM.

In the light of this, it is surprising to find that misconceptions continued among staunch Muslims regarding the medicinal properties of liquor.

In his Tafsir al-Qur'an al Karim (Explanation of the Holy Qur'an) , the renowned and highly esteemed Ibn Kathir

al-Dimishqi said," The evil of liquor is in "religion" (from the religious point of view). The benefits of liquor are: it helps a) the health of the body, the digestion of food, c) excretion of obnoxious material from the digestion of food, d) sharpens the thinking of some brains. Besides, it gives the sense of pleasure which Hassan ibn Thabit has proclaimed in his poetry before Islam.' (6)

Even great mediaeval Muslim physicians and philosophers, such as Abu Bakr Al-Razi and Ibn Sina , were commending liquor in moderation to maintain good health. Abu Bakr Al-Razi, in his book "The Benefits of Food" said , 'The intoxicating liquor has the advantage of heating the body, helping digestion of food in the stomach, its delivery to the liver where it is well-digested. Henceforth, it helps its distribution to the rest of the body via the various blood vessels. Liquor quenches thirst, especially if it is taken with good, nutritious meals. It also gives the body a good healthy colour and helps to push the harmful excreta out of the body. Therefore, it is a great asset and a big assistance in keeping good health." (7).

Imam Ja'far al Sadiq, a descendant of Prophet Muhammad (PBUH), was asked by one of his disciples to drink the intoxicating liquor prescribed by a physician for his bleeding piles. The Imam refused, saying " God has never made your remedies in things that He has prohibited." He also emphatically refused the idea of dissolving the ingredients of medicine in alcohol (Imam Ja'far lived in the second Hijri century - the eighth century AD).(4) The majority of the Islamic jurists took the same stance held by

Imam Ja 'far al-Sadiq. Ibn al-Qayyim, one of the renowned jurists of the eighth Hijri century (d 751 AH), wrote many a chapter in his books to deny the medicinal uses of alcohol claimed by the physicians of his era. In his book "Al-Tibb al-Nabawi(The Medicine of the Prophet), he stated the following argument against health-procuring properties of liquor: 'Liquor drinking is a cause of disease, as has been stated by Prophet Muhammad, and therefore it cannot be allowed to be used as a remedy. It causes the nature of man and his soul ill-effects. The nature of man is greatly affected by the nature of the drug used. If the drug is bad, like liquor, then the nature will be badly affected. This is why God has prohibited the use of bad food (e.g. pork, carcasses, blood) bad liquor and even bad clothing, because the psyche is affected deeply by the nature of bad food, drink or clothing.'(5)

There is a truism - 'we are what we eat' - illustrates the deeply-integrated effects of the food and drink we consume. Food and drink is transformed within the human body into the energy we need by the process of catabolism, the rebuilding of lost and degenerated tissues and cells; and by the process of growth, well-maintained in children, which is the process of anabolism. Small wonder, therefore, to find good or deleterious effects on our bodies and souls ensuring from the food and drink we consume.

The same explanation was given by Ibn al-Qayyim to his contemporaries. He was emphatically denying the benefits of alcohol claimed by al-Razi and Ibn Sina and the whole medical profession of his day. In his time, there was

little proof for his belief except that it was so clearly stated by the Prophet (PBUH). As a firm believer he argued extremely well against liquor, using all his intellectual and superb semantic powers.

It is therefore astonishing to find a contemporary and well respected 'Faqih' (Jurist) claiming that drinking liquor is permissible for a man who becomes ill in cold weather, or who suffers from angina pectoris, or a heart attack, provided it was advised by his doctor. (9) The majority of the Muslim jurists agreed that liquor should never be used as a drug to treat disease, nor to give warmth in cold climates; neither should it be allowed to quench thirst.

Imam al-Nawawi (7) (seventh century AH/ thirteenth century AD) his reference book 'al Majmu'o' , gave the different opinions of the Muslims jurists regarding the drinking of alcohol as a remedy. The majority of jurists-Al Jumhur - never allowed the use of liquor for any reason, including its use as a remedy or to quench thirst, even if there was no fluid permissible to drink. A few jurists allowed the use of alcohol as a remedy, and to quench thirst if no other permissible fluid was available. Some allowed its use as a remedy, but not to quench thirst, and others allowed its use to quench thirst only provided that there was not permissible fluid available.

But the jurists did allow the use of alcohol as a solvent for drugs that will not dissolve in water. Al-Khateeb al-Shirbini stated in his reference textbook "Muqhni al-Muhtaj", The use of liquor as a remedy is prohibited by our religion. However, the use of drugs which have been mixed

with liquor as a solvent is another matter. It is permissible to use that drug provided that a competent good Muslim physician has prescribed it. [11]

The use of alcohol as a remedy in today's medicine has been abandoned except for its use as a topical disinfectant. It is also occasionally used as a local injection to destroy a nerve ganglion causing great pain. However, the use of alcohol as a solvent for many drugs is not uncommon even today.

The medical and pharmacological professions in the Muslims world are strongly urged to replace the drugs containing alcohol with others that are alcohol-free. This is not very difficult to accomplish, if co-operation and meticulous work are begun. Most of the drugs containing alcohol are not essential and can be easily replaced by others. The use of alcohol as a disinfectant is not really necessary; there are many alternatives available. In any case the external use of alcohol is not prohibited by Muslim jurists. [12].

APHRODISIAC EFFECT OF ALCOHOL

Alcohol beverages are still used by laymen because they are believed to have an aphrodisiac effect, a claim that was refuted by the renowned English poet, Shakespeare, who said, 'It provokes the desire, but takes away the performance.[13] Nevertheless, this misconception continues because of many sexual crimes which are committed under the influence of alcohol. Fifty per cent of all rapes are

committed under the influence of alcohol[14] Crimes of incest are reported to occur mainly under the effects of intoxicating liquor.[15] The force advertising, which connects liquor with manliness and sexual prowess, is so strong that it promotes the mistaken concept, especially among teenagers, that alcohol enhances libido and sexuality. But the reality is quite the opposite - the cumulative effect of alcohol on sex is deleterious.

Alcohol acts as a direct toxin to the testicles where the male sex hormones and semen are produced.[16] The autonomic nervous systems, which controls erection and ejaculation, is also affected by chronic consumption of alcohol. In addition, the affected liver of the alcoholic is incapable of destroying the oestrogenic hormones normally produced by the male suprarenal glad . This results in decreased libido, impotence and gynecomastia. [17,18]

In the female, the deleterious effects of alcohol are well-manifested in irregularities of menses, decreased libido and foetal-alcohol syndrome.[19] The foetus of the alcoholic mother suffers great risks, which are summarized in Table8,[20,21] A review of alcohol effects on reproduction functions has recently been published. [22]

Table 8.

The Foetal-Alcohol Syndrome

Microcephaly
Microphthalmia
Cardiac defects
Growth retardation
Mental impairment
Increased incidence of abortion

Alcohol as an aperitif

Alcoholic beverages were, and still are, used as a aperitif. Even al-Razi, the great mediaeval Muslim physician, believed in the digestive and aperitif function of alcohol. Alcohol, in concentrations of less than 8 per cent, does increase the secretion of saliva and gastric hydrochloric acid. However,, if ingestion of alcohol is repeated, this effect is lost.

Alcohol and the oesophagus

Many studies have shown that both acute and chronic administration of alcohol results in oesophageal motor dysfunction causing mild dysphagia and gastro-oesophageal reflux.(23) This results in chronic oesophagitis(24) and Barrett's oesophagus. (25)

The treatment for oesophagitis in the alcoholic is, obviously, abstention from alcohol, plus any anti-reflux regimen. The most important complication that may arise from chronic alcohol intake is the development of cancer of the oesophagus.(26,27) Whisky drinkers are at greatest risk, but even wine and beer drinkers are at much greater risk than non-drinkers. Alcohol combined with increases the risk of developing cancer considerably. (23)

Alcohol and the stomach

Since the classic observation of Beamont in 1833, who noted acute mucosal changes following alcohol consumption by a patient who had a gastronomy following a gunshot would, the deleterious effects of alcohol on gastric muscosa are well-recognized by the medical profession.

Small concentrations of alcohol (less than 8 per cent) stimulate the acid secretion from the gastric mucosa of dogs. However, this stimulation is transient and weak. In man, there is as yet no evidence of a clinically significant nature that alcohol affects gastric acid secretion.(28) The gastric mucosal barrier which protects it from many harmful substances ingested with food, is liable to destruction under the effect of alcohol.(29) It is generally accepted that ethanol is disruptive to the gastric mucosal barrier. (23)

Alcohol induces acute gastritis and chronic gastritis.(31) It also affects critically the pancreas, the intestines, and the liver, (32,33,34) Therefore, the ingestion of alcohol does not, in fact, help digestion. On the contrary, it destroys the digestive system from the salivary glands, down to the

oesophagus, stomach, intestines, pancreas and the liver. The incidence of cancer of the digestive tract, especially the oesophagus, intestines and liver, are markedly increased in alcoholics, compared with the general population. [35]

Alcohol and the cardiovascular system

Alcohol was considered a stimulant to cardiac muscle and a dilator of its vessels. But, in fact, alcohol is a directly toxic becomes flabby and fails in its functions, resulting in heart failure and deaths.[36] Beriberi, a disease due to thiamine (Vitamin B_1) deficiency, is not uncommon in alcoholics.[37] Beriberi also causes heart failure.[38] However, unlike alcoholic myopathy, it does respond rapidly to treatment with thiamine, diuretics and cardiac glycosides. Alcohol causes hypertension which, in turn, is detrimental to the heart and its circulation.[39,40] Alcoholics also suffer an increased incidence of strokes.[41,43] The alcoholic is also liable to have increased fats in his blood (hypertriglyceridoemia) which, with other factors, results in atherosclerosis.[44]

Although alcohol is a vasodilator for many blood vessels, especially those in the skin, it does not have this effect on the coronary blood vessels which supply the heart with nourishment and oxygen.[45] It is clear, therefore, the alcohol is not a good remedy for the heart or its narrowed vessels. On the contrary, its deleterious effects on the cardiac muscle indicate that it is dangerous to treat patients having heart disease with alcohol. In fact, it is considered a

major cause of heart disease in countries with high consumption of alcohol.[46,47]

Alcohol and cold climates

Since the time of the Prophet (PBUH) many people have drunk alcohol in the mistaken belief that it offers protection from the effects of cold weather.

Alcohol dilates the cutaneous blood vessels, which provides a sense of warmth. It also abolishes the shivering reflex, which is a protective mechanism of the body against cold. Therefore, if a person drinks alcohol and is exposed to cold weather, as often occurs at Christmas and New Year festivals, such a person will be greatly endangering his health -being liable to lose body heat and suffer hypothermia.[48,50] Alcohol abuse is by far the most common cause of accidental hypothermia.[51] The level of consciousness declines progressively with decreasing body temperature; pupils contract and tendon reflexes are lost. Alcoholism predisposes to hypothermia by its direct vasodilating effect, couples with its depressant effect on the central nervous system and the attendant increased risk produced by environmental exposure. Morality resulting from accidental hypothermia ranges from 30-80 per cent. [52]

Alcohol and the brain

The misconception of 'sharpening some brains' by alcohol is not only an old myth, it is also a modern one. Many people feel that they become sharp and witty when drinking alcohol.

Alcohol is never a stimulant of the nervous system; it is depressant, with higher functions being affected first.[20,52] The earliest symptoms of intoxication are those of altered behaviour. In larger doses, it produces irregularities in conduct; a person becomes depressed or excited, depending on his personality. The higher cortical functions are inhibited, thus normal restraints are relaxed.[20,52,53]

The ability to carry out coordinated and complex motor activity also is progressively impaired. It is at this stage that crimes and traffic accidents occur. The risk of traffic accidents rises exponentially at blood alcohol levels above 50 mg per cent. When the blood alcohol level reaches 200mg per cent (equivalent to consuming six pints of beer) the risk of accident is a hundred-fold greater than that for a non- drinker.[20]

WHO statistics suggest that alcohol is involved in at least 50 per cent of all traffic accidents, worldwide. WHO also reports that 86 per cent of all murders are committed under the influence of alcohol, as are 50 per cent of al rapes.[14,20]. Other findings are that 74 per cent of wife-beaters are heavy drinkers, and that at least 50 per cent of those imprisoned in the UK having significant alcohol problems.[14,20].

The effect of alcohol on speech is manifested first by loss of restraints and increased talkativeness. Later, speech becomes slurred. Alcohol causes the conjunctiva to become congested and the pupils to become dilated, but still reactive to light. Nystagmus and ataxia are invariably manifested. If

the dose of intoxicant is great enough, unconsciousness follows. This condition is also usually associated with vomiting; which, in a comatose patient whose cough reflexes are paralysed, may result in lung abscess, pneumonia or even death from suffocation.[20,51,54] An American girl, Karen Ann Quinlan, lost consciousness following an alcohol binge in 1971., remained in a coma for ten years and died on 12 June 1985. Her story demonstrates dramatically the horrifying depressant and inhibitory effect of alcohol on the central nervous system.

The chronic consumption of alcohol causes irreversible damage to the brain and the rest of the nervous system. Cerebral atrophy and dementia are not uncommon in chronic alcoholics.[20,51,52]

In conclusion, alcohol has a strong depressant and inhibitory effect on the brain and the whole nervous system. The mistaken belief that it stimulates the brain has no scientific basis. Unfortunately, it is a myth that lingers on and refuses to die.

In 'Managerial hypochondria' "Medicine Digest, London, October, 1986, the authors, Professor Qais Ghanem, FRCPC, and Dr. I. Ghanem, FBIM, Ph.D.(London) emphasize the need to overcome the shame barrier in the Mid-East which prevents many Arabs from using 'drying-up' centres. Detoxification is an answer but it starts with coming to terms with a harsh reality.

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